



## Significant Changes In 2013 California Codes For Electrical Code

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The 2013 Standards went into effect on January 1, 2014.

Article 100 Definition of bathroom changed to an area consisting of a basin and one or more of the following: toilet, urinal, tub, shower, bidet or similar plumbing fixture.

**110.24 Available Fault Current** Service equipment to be marked in the field with maximum available fault current: Excludes dwellings, must include the date fault current calculated, Marking must be sufficiently durable to withstand the environment. At time of any modifications must be verified or recalculated and the markings adjusted as needed.

**200.4 Neutral Conductors** Prohibits single neutral conductor for more than one branch circuit, more than one multi-wire branch circuit, or more than one set of ungrounded feeders.

**200.7(C)(1) White Conductor Identification** 3 or 4 way switch loops: Re-identified white conductor in cable assembly shall only be used to supply the switch, it is prohibited as the return conductor from the switch to the outlet.

**210.8 GFCI Accessibility** GFCI shall be installed in a readily accessible location, breakers are by default readily accessible, and caution must be used when GFCI may be blocked by items such as furniture, refrigerator or vending machine.

**210.8(A)(7) Sinks (Dwelling Units)** GFCI protection is required for all receptacles installed w/l 6' of any sink.

**210.8(B) GFCI Additions (Other Than Dwelling Units)** 6. Indoor wet locations, 7. Locker rooms associated with showering facilities, 8. Garages, service bays, or similar locations where portable hand tools and lighting are used.

**210.12(A) Ex 1 & 2 AFCI at the 1st Outlet** Wiring from the panel to the first outlet must be installed in RMC, IMC, EMT, MC or steel jacketed AC cable. Must also have metal outlet box and junction box.

**210.12(B) Branch Circuit Extension or Modification** Requires AFCI protection where branch circuit wiring is modified or extended. Applies to branch circuits in any of the areas specified in 210.12(A). Can be achieved by AFCI breaker at circuit origin or outlet branch circuit AFCI.

**210.52(A)(2)(1) Wall Space** Permits exclusion of fixed cabinets from wall space determination.

**210.52(A)(4) Countertop Receptacle** Prohibits use of countertop receptacle to meet the 210.52(A) requirements for wall space.

**210.52(E)(3) Balconies, Decks and Porches** Removed exception for small balconies decks or porches, at least one receptacle is required to be installed.

210.52(G) **Accessory Buildings (One Family)** A receptacle is required to be installed in an accessory building if electric power is provided.

210.52(I) **Foyers** Requires receptacles to be installed in foyers greater than 60 sf, not part of a hallway at each wall space 3' or more width unbroken by doorway etc.

225.27 **Raceway Seal** Raceways entering a building from an underground distribution system shall be sealed. Spare raceways must also be sealed. Sealant to be identified for use with cable.

230.40 Ex 1 **Number of Service Entrance Conductor Sets** Buildings with more than one occupancy can have service entrance conductors run to each occupancy. Plaques and directories are required.

250.30(C) **Outdoor Source** If source of separately derived system is located outside building grounding electrode connection must be made at source and must comply with 250.50.

250.121 **Use of Equipment Grounding Conductors** It is prohibited to use the equipment grounding conductor as a grounding electrode conductor.

300.4(H) **Structural Joints** Listed expansion fittings shall be used at structural joints intended for expansion, contraction or deflection.

314.27(C) **Boxes at Ceiling Fan Outlets** Boxes installed with separately switched ungrounded conductors in locations suitable for a ceiling fan shall be listed for sole support of ceiling suspended fan.

338.10(B)(4)(a) **Interior Installations of SE Cable** If SE cable is installed in thermal insulation the capacity shall be limited to 60C.

Article 399 **Outdoor, Overhead Conductors over 600V** New article added. Documentation of design by licensed professional engineer.

404.2(C) **Switch Controlled Lighting** Grounded circuit conductor shall be provided at the switch location.

406.4(D)(4) **AFCI Protection** Receptacle being replaced and located in area that requires AFCI protection shall be listed AFCI receptacle or a receptacle protected by branch circuit AFCI protection.

406.4(D)(5) **Tamper Resistant Receptacles** When replacement is made receptacles in required locations must be replaced by listed tamper resistant type.

406.4(D)(6) **Weather Resistant Receptacles** When replacement is made receptacles in required locations must be replaced with listed weather resistant type.

406.12 **Tamper Resistant Receptacles in Dwelling Units** Tamper resistant not required above 5 ½ feet, in dedicated spaces of equipment not easily moved replacements of non-grounding type receptacles.

**406.13 Tamper Resistant Receptacles in Guest Rooms/Suites** 125v 15 and 20 amp non-locking receptacles in guest rooms are required to be listed tamper resistant.

**406.14 Tamper Resistant Receptacles in Child Care Facilities** 125v 15 and 20 amp non-locking receptacles in child care facilities are required to be listed tamper resistant.

**408.4(B) Source Supply** Requires marking to indicate where power originates. Includes all switchboards and panel boards supplied by a feeder except one and two family dwellings.

**450.14 Transformer Disconnect** A disconnect shall be insight of or remotely located with capability of locking.

**547.5(G) Agricultural Building GFCI** Exception deleted. All 125v 15 and 20 amp general purpose receptacles shall be GFCI protected.

**555.3 Marinas Ground Fault Protection** Main overcurrent protective devices feeding marinas require GFCI protection of equipment.

**680.10 Underground Wiring Locations** Revised table permits use of NM conduit at 6" burial depth under 4" of concrete.

**680.26(B)(7) Equipotential Bonding** Adds to the list of metal parts to be bonded, metal awnings, metal fences, metal door and window frames within 5' of wall of pool.

**680.73 Accessibility** Cord and plug connected hydro massage tubs where connection is accessed through service access openings must have receptacle W/I 12" of opening and in direct view.

**690.4(B) Identification and Grouping** PV conductors must be separate from conductors, feeders or branch circuits of non-PV systems, and shall be identified and grouped.

**690.4(B) Identification and Grouping** More than one PV system conductors in a junction box shall be separated by wire ties and at intervals not exceeding 6'.

**690.4(E) Wiring and Connections** Requires that PV systems and associated wiring be installed only by Qualified Persons.

**690.4(H) Multiple Inverters** Permits multiple utility interactive inverters on a building in separate locations with a directory of all a/c and d/c disconnects at the service.

**690.10(E) Backfed Breakers** Backfed breakers of standalone systems shall be secured.

**690.11 Arch fault Protection** Listed DC arch fault protection required for PV systems.

**700.10(D)(1) Fire Protection** Feeders of emergency systems now require 2 hr. fire protection.

**701.6(D) Ground Fault Signals** Audible and visual devices required to indicate ground faults on legally required backup systems.